

***IN THE UNITED STATES PATENT AND TRADEMARK OFFICE***

Applicant: Katsuhiko Mikoshiba  
Title: RNA-BINDING PROTEIN  
Appl. No.: Unassigned  
Filing Date: March 30, 2001  
Examiner: Unassigned  
Art Unit: Unassigned

**PRELIMINARY AMENDMENT**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to examination of the present Application, Applicants respectfully request that the above-identified application be amended as follows:

**IN THE CLAIMS:**

In accordance with 37 CFR §1.121, please substitute for original claims 1, 2, 7, 10, 11, 12, 13, 14, 16, and 19 the following rewritten versions of the same claims, as amended. The changes are shown explicitly in the attached "Versions With Markings to Show Changes Made."

1. (Amended) An isolated protein comprising an amino acid sequence selected from SEQ. ID NO: 2.

2. (Amended) An isolated protein selected from the group consisting of the following (a) and (b):

(a) a protein comprising the amino acid sequence as shown in SEQ ID NO: 4;  
or

(b) a protein which comprises the amino acid sequence as shown in SEQ ID NO: 4 having deletion, substitution or addition of one to ten amino acids within the region from position 1 to position 400 and which has RNA binding activity.

7. (Amended) A recombinant vector comprising the gene according to claim 3.
10. (Amended) An antibody against the protein according to claim 1.
11. (Amended) A pharmaceutical composition for regulating neuronal functions, comprising the protein according to claim 1.
12. (Amended) A therapeutic agent for neurological diseases comprising the protein according to claim 1 as an active ingredient.
13. (Amended) A pharmaceutical composition for regulating neuronal functions, comprising the gene according to claim 3.
14. (Amended) A therapeutic agent for neurological diseases, comprising the gene according to claim 3.
16. (Amended) A reagent for detecting Synaptotagmin, comprising the protein according to claim 1.
19. (Amended) A method of detecting Synaptotagmin, comprising:
  - (a) fractionating a sample;
  - (b) reacting the resultant fractions with the protein wherein an isolated protein comprising an amino acid sequence selected from SEQ. ID NO: 2 which has been labeled;
  - (c) reacting the reaction products obtained in step (b) above with the antibody according to claim 10 which has been labeled; and
  - (d) detecting a signal from the reaction products obtained in step (c) above.

**Please add the following new claims:**

21. (New) A recombinant vector comprising the gene according to claim 4.
22. (New) A recombinant vector comprising the gene according to claim 5.
23. (New) A recombinant vector comprising the gene according to claim 6.
24. (New) An antibody against the protein according to claim 2.
25. (New) A pharmaceutical composition for regulating neuronal functions, comprising the protein according to claim 2.
26. (New) A therapeutic agent for neurological diseases comprising the protein according to claim 2 as an active ingredient.
27. (New) A pharmaceutical composition for regulating neuronal functions, comprising the gene according to claim 4.
28. (New) A pharmaceutical composition for regulating neuronal functions, comprising the gene according to claim 5.
29. (New) A pharmaceutical composition for regulating neuronal functions, comprising the gene according to claim 6.
30. (New) A therapeutic agent for neurological diseases, comprising the gene according to claim 4.
31. (New) A therapeutic agent for neurological diseases, comprising the gene according to claim 5.

32. (New) A therapeutic agent for neurological diseases, comprising the gene according to claim 6.
33. (New) A reagent for detecting Synaptotagmin, comprising the protein according to claim 2.
34. (New) A reagent for detecting Synaptotagmin, comprising the protein according to claim 10.
35. (New) A reagent for detecting Synaptotagmin, comprising the antibody according to claim 10.
36. (New) A method of detecting Synaptotagmin, comprising:
- (a) fractionating a sample;
  - (b) reacting the resultant fractions with a protein comprising an amino acid sequence, which has been labeled, selected from the group consisting of SEQ. ID NO: 2, SEQ ID NO: 4, and SEQ ID NO: 4 that has deletion, substitution or addition of one to ten amino acids within the region from position 1 to position 400 and that has RNA binding activity;
  - (c) reacting the reaction products obtained in step (b) with the antibody according to claim 10 which has been labeled; and
  - (d) detecting a signal from the reaction products obtained in step (c) above.

Applicants respectfully request that the foregoing amendments to Claims 1, 2, 7, 10, 11, 12, 13, 14, 16, and 19 and therefore adding new claims 21-36, be entered in order to avoid this application incurring a surcharge for the presence of one or more multiple dependent claims.

Respectfully submitted,

By



Date March 30, 2001

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**VERSIONS WITH MARKINGS TO SHOW CHANGES MADE**

1. An isolated protein comprising [the] an amino acid sequence [as shown in] selected from SEQ ID NO: 2.
2. An isolated protein selected from the group consisting of the following (a) and (b):  
(a) a protein comprising the amino acid sequence as shown in SEQ ID NO: 4; [and]  
or  
[(d)] (b) a protein which comprises the amino acid sequence as shown in SEQ ID NO: 4 having deletion, substitution or addition of one to ten amino acids within the region from position 1 to position 400 and which has RNA binding activity.
7. A recombinant vector comprising the gene according to [any one of claims 3 to 6] claim 3.
10. An antibody against the protein according to claim 1 [or 2].
11. A pharmaceutical composition for regulating neuronal functions, comprising the protein according to claim 1 [or 2].
12. A therapeutic agent for neurological diseases comprising the protein according to claim 1 [or 2] as an active ingredient.
13. A pharmaceutical composition for regulating neuronal functions, comprising the gene according to [any one of claims 3 to 6] claim 3.
14. A therapeutic agent for neurological diseases, comprising the gene according to [any one of claims 3 to 6] claim 3.
16. A reagent for detecting Synaptotagmin, comprising the protein according to claim 1 [or 2 and/or the antibody according to claim 10].

19. A method of detecting Synaptotagmin, comprising:

(a) fractionating a sample;

(b) reacting the resultant fractions with [the] a protein [according to claim 1 or 2] an isolated protein comprising an amino acid sequence, which has been labeled, selected from the group consisting of SEQ. ID NO: 2, SEQ ID NO: 4; and SEQ ID NO: 4, that has deletion, substitution or addition of one to ten amino acids within the region from position 1 to position 400 and that has RNA binding activity.

which has been labeled;

(c) reacting the reaction products obtained in step (b) with the antibody according to claim 10 which has been labeled; and

(d) detecting a signal from the reaction products obtained in step (c) above.